

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in this application:

LISTING OF CLAIMS:

1. (Previously Presented) Seat for amusement apparatus comprising a support and means for immobilizing the user on the support, wherein the immobilizing means are suitable for leaving the passenger's shoulders free and immobilizing him through an abdominal or thoracic portion and wherein the support is shaped so as to receive the passenger astride the seat.
2. (Previously Presented) Seat for amusement apparatus according to claim 1, in which the immobilizing means comprise at least one frontal support with respect to a user and opposing means designed to act on the user's back.
3. (Previously Presented) Seat according to claim 2, in which the opposing means can move between an open position and a closed position in which it abuts against the user's back.
4. (Previously Presented) Seat according to claim 2, in which the opposing means comprises an arm which can move between a lowered position in which the user can sit down on the support and a raised position in which one end of the arm abuts against the user's back.
5. (Previously Presented) Seat according to claim 4, in which the arm is suitable for rotating with respect to the support.
6. (Previously Presented) Seat according to claim 5, in which the arm is operatively associated with a rotating actuator.
7. (Currently Amended) Seat according to claim 5, in which for amusement apparatus comprising a support and means for immobilizing the user on the support, wherein the immobilizing means are suitable for leaving the passenger's shoulders

free and immobilizing him through an abdominal or thoracic portion and wherein the support is shaped so as to receive the passenger astride the seat;

wherein the immobilizing means comprise at least one frontal support with respect to a user and opposing means designed to act on the user's back;

wherein the opposing means comprises an arm which can move between a lowered position in which the user can sit down on the support and a raised position in which one end of the arm abuts against the user's back;

wherein the arm is suitable for rotating with respect to the support; and

wherein the arm is operatively associated with a linear actuator;

8. (Currently Amended) ~~Seat according to claim 6, in which~~ for amusement apparatus comprising a support and means for immobilizing the user on the support, wherein the immobilizing means are suitable for leaving the passenger's shoulders free and immobilizing him through an abdominal or thoracic portion and wherein the support is shaped so as to receive the passenger astride the seat;

wherein the immobilizing means comprise at least one frontal support with respect to a user and opposing means designed to act on the user's back;

wherein the opposing means comprises an arm which can move between a lowered position in which the user can sit down on the support and a raised position in which one end of the arm abuts against the user's back;

wherein the arm is suitable for rotating with respect to the support;

wherein the arm is operatively associated with a rotating actuator; and

wherein the arm is associated with a splined shaft and a gear which can be caused to rotate by the actuator.

9. (Currently Amended) ~~Seat according to claim 4, in which~~ for amusement apparatus comprising a support and means for immobilizing the user on the support, wherein the immobilizing means are suitable for leaving the passenger's shoulders free and immobilizing him through an abdominal or thoracic portion and wherein the support is shaped so as to receive the passenger astride the seat;

wherein the immobilizing means comprise at least one frontal support with respect to a user and opposing means designed to act on the user's back;

wherein the opposing means comprises an arm which can move between a lowered position in which the user can sit down on the support and a raised position in which one end of the arm abuts against the user's back; and

wherein the arm is operatively associated with means for controlling position.

10. (Previously Presented) Seat according to claim 9, in which the means for controlling position comprise a cam which moves with respect to a microswitch.

11. (Currently Amended) ~~Seat according to claim 4, in which~~ for amusement apparatus comprising a support and means for immobilizing the user on the support, wherein the immobilizing means are suitable for leaving the passenger's shoulders free and immobilizing him through an abdominal or thoracic portion and wherein the support is shaped so as to receive the passenger astride the seat;

wherein the immobilizing means comprise at least one frontal support with respect to a user and opposing means designed to act on the user's back;

wherein the opposing means comprises an arm which can move between a lowered position in which the user can sit down on the support and a raised position in which one end of the arm abuts against the user's back; and

wherein the arm is operatively associated with means for immobilizing it in the raised position.

12. (Previously Presented) Seat according to claim 11, in which the means for immobilizing in the raised position comprise a toothed wheel associated with the arm and a rack can be moved between the position in which it is suitable for meshing with the toothed wheel in the raised position of the arm and a position in which the toothed wheel is free to rotate.

13. (Previously Presented) Seat according to claim 4, in which one extremity of the arm is suitable for wrapping partly round the back of the user.

14. (Previously Presented) Seat according to claim 2, in which the front support is mounted to move on the seat so that its position can be adjusted according to the user's dimensions.

15. (Previously Presented) Seat according to claim 2, in which the opposing means is suitable for rotating with respect to the support.

16. (Previously Presented) Seat according to claim 3, in which the opposing means is suitable for moving laterally with respect to the support.

17. (Original) Amusement apparatus comprising a platform which can move on at least one track, said platform comprising at least one seat according to one of claims from 1 to 16.

18. (Previously Presented) Amusement apparatus according to claim 17, in which the platform is circular.

19. (Previously Presented) Amusement apparatus according to claim 17, in which the platform comprises a plurality of seats arranged on at least one peripheral portion of the platform.

20. (Previously Presented) Amusement apparatus according to claim 17, in which the at least one seat is positioned in such a way that the passenger faces outwards from the platform.

21. (Previously Presented) A seat for an amusement apparatus, comprising:
(a) a rider support including:

(i) a seat portion; and

(ii) a front portion situated higher than the seat portion and angled such that a rider sitting astride on the seat portion must lean forward into a forward leaning posture for at least one of the rider's abdominal and thoracic regions to contact the front portion of the rider support; and

(b) a restraint moveable between a first position not contacting the rider in the forward leaning posture and a second position wherein at least a portion of the restraint contacts at least a back portion of the rider in the forward leaning posture and configured to maintain the rider in said forward leaning posture.

22. (Previously Presented) The seat of claim 21, wherein the restraint is pivotable between the first and second positions.

23. (Previously Presented) The seat of claim 21, wherein at least one of the front portion and the restraint include side portions arranged to at least partially wrap around a side of the rider.

24. (Previously Presented) The seat of claim 21, wherein the restraint does not restrain rider's shoulders.

25. (Previously Presented) The seat of claim 21, wherein the rider support is supported by a frame connected to a floor of the amusement apparatus.

26. (Previously Presented) The seat of claim 25, wherein the restraint is pivotally connected to the frame.

27. (Previously Presented) The seat of claim 25, wherein the frame includes a frontal support member arranged at an angle to the floor and a support portion connected to one end of the frontal support member at an angle to the frontal support member.

28. (Previously Presented) The seat of claim 27, wherein the front portion of the rider support is connected to the support portion of the frame.

29. (Previously Presented) The seat of claim 27, wherein the frame includes at least one lateral support member connected to the floor on one end and the frontal support member at an opposite end.

30. (Previously Presented) The seat of claim 25, further comprising a casing that at least partially covers the frame.

31. (Previously Presented) The seat of claim 22, wherein the restraint includes an arm and an opposing portion connected to the arm arranged to abut the

riders back when the restraint is in the second position and the rider is in the forward leaning posture.

32. (Currently Amended) A ~~[[The]]~~ seat of claim 21, for an amusement apparatus, comprising:

(a) a rider support including:

(i) a seat portion; and

(ii) a front portion situated higher than the seat portion and angled such that a rider sitting astride on the seat portion must lean forward into a forward leaning posture for at least one of the rider's abdominal and thoracic regions to contact the front portion of the rider support; and

(b) a restraint moveable between a first position not contacting the rider in the forward leaning posture and a second position wherein at least a portion of the restraint contacts at least a back portion of the rider in the forward leaning posture and configured to maintain the rider in said forward leaning posture;

wherein the restraint is operatively associated with one of a rotating actuator and a linear actuator.

33. (Currently Amended) A ~~[[The]]~~ seat of claim 31, for an amusement apparatus, comprising:

(a) a rider support including:

(i) a seat portion; and

(ii) a front portion situated higher than the seat portion and angled such that a rider sitting astride on the seat portion must lean forward into a forward leaning posture for at least one of the rider's abdominal and thoracic regions to contact the front portion of the rider support; and

(b) a restraint moveable between a first position not contacting the rider in the forward leaning posture and a second position wherein at least a portion of the restraint contacts at least a back portion of the rider in the forward leaning posture and configured to maintain the rider in said forward leaning posture;

wherein the restraint includes an arm and an opposing portion connected to the arm arranged to abut the riders back when the restraint is in the second position and the rider is in the forward leaning posture;

wherein the restraint is pivotable between the first and second positions; and

wherein the arm is operatively associated with a splined shaft and a gear rotatable by one of a rotating actuator and a linear actuator.

34. (Previously Presented) The seat of claim 21, wherein the front portion of the rider support is movably mounted on the seat such that a position of the front portion is adjustable according to a rider's dimensions.

35. (Currently Amended) A ~~[[The]]~~ seat of claim 31, for an amusement apparatus, comprising:

(a) a rider support including:

(i) a seat portion; and

(ii) a front portion situated higher than the seat portion and angled such that a rider sitting astride on the seat portion must lean forward into a forward leaning posture for at least one of the rider's abdominal and thoracic regions to contact the front portion of the rider support; and

(b) a restraint moveable between a first position not contacting the rider in the forward leaning posture and a second position wherein at least a portion of the restraint contacts at least a back portion of the rider in the forward leaning posture and configured to maintain the rider in said forward leaning posture;

wherein the restraint is pivotable between the first and second positions;

wherein the restraint includes an arm and an opposing portion connected to the arm arranged to abut the riders back when the restraint is in the second position and the rider is in the forward leaning posture; and

wherein the arm is operatively associated with a splined shaft having a cam connected thereto, the cam configured to trigger a switch when the restraint is moved to a predetermined position.

36. (Previously Presented) The seat of claim 35, wherein the switch includes a runner arm having a wheel rotatably connected to one end, and wherein a profile

of the cam is configured to move with respect to the wheel to cause the runner arm to rotate about a switch hinge point.

37. (Previously Presented) The seat of claim 36, wherein the cam is circular and includes a first radius over a portion of the cam profile and a second smaller radius over another portion of the cam profile.

38. (Previously Presented) The seat of claim 31, further comprising a lock configured to immobilize the arm when the restraint is in the second position and the rider is in the forward leaning posture.

39. (Currently Amended) A [[The]] seat of claim 38, for an amusement apparatus, comprising:

(a) a rider support including:

(i) a seat portion; and

(ii) a front portion situated higher than the seat portion and angled such that a rider sitting astride on the seat portion must lean forward into a forward leaning posture for at least one of the rider's abdominal and thoracic regions to contact the front portion of the rider support;

(b) a restraint moveable between a first position not contacting the rider in the forward leaning posture and a second position wherein at least a portion of the restraint contacts at least a back portion of the rider in the forward leaning posture and configured to maintain the rider in said forward leaning posture; and

(c) a lock configured to immobilize the arm when the restraint is in the second position and the rider is in the forward leaning posture;

wherein the restraint is pivotable between the first and second positions;

wherein the restraint includes an arm and an opposing portion connected to the arm arranged to abut the riders back when the restraint is in the second position and the rider is in the forward leaning posture; and

wherein the lock includes a rack hinged on the frame and associated with a toothed wheel keyed on a splined shaft operatively associated with the arm.

40. (Previously Presented) The seat of claim 39, further including resilient means for keeping the toothed wheel against the rack, said resilient means disabled during a return movement of the arm from the second position to the first position.

41. (Previously Presented) The seat of claim 39, further comprising a pneumatic piston configured to keep the toothed wheel against the rack, said pneumatic piston configured to be pneumatically disabled during a return movement of the arm from the second position to the first position.

42. (Currently Amended) The seat of claim 21, wherein the seat is adapted to be mounted on a platform of the amusement apparatus configured to move on at least one track.

43. (Previously Presented) The seat of claim 42, wherein the track has a U-shape.

44. (Previously Presented) The seat of claim 42, wherein the platform is circular.

45. (Previously Presented) The seat of claim 44, wherein the seat is arranged on at least one peripheral portion of the platform.

46. (Previously Presented) The seat of claim 45, wherein the seat is arranged such that the rider faces outwardly away from the platform.

47. (Previously Presented) The seat of claim 42, wherein the platform is configured to rotate relative to the track.

48. (Previously Presented) A seat for an amusement apparatus, comprising:

(a) a rider support including:

(i) a seat portion; and

(ii) a front portion situated higher than the seat portion and angled relative to a floor of the amusement apparatus such that a rider sitting astride on the seat portion must lean forward into a forward

leaning posture for at least one of the rider's abdominal and thoracic regions to contact the front portion of the rider support; and

(b) opposing means moveable between a first position not contacting the rider in the forward leaning posture and a second position wherein at least a portion of the restraint contacts at least a back portion of the rider in the forward leaning posture and configured to maintain the rider in said forward leaning posture.

49. (Previously Presented) The seat of claim 48, further comprising means for checking a position of the opposing means to assure that the rider is secured.

50. (Previously Presented) The seat of claim 48, further comprising means for immobilizing the opposing means in the second position.

Claims 51 to 55. (Canceled).

56. (Previously Presented) A seat for an amusement apparatus, comprising:
a support configured to receive a passenger astride the support; and
an arrangement configured to immobilize a passenger on the support, the arrangement configured to maintain shoulders of the passenger free and to secure the passenger on the support at at least one of an abdominal portion of the passenger and a thoracic portion of the passenger.

57. (Previously Presented) A seat for an amusement apparatus, comprising:
a support including a seat portion and a front support member, the support configured to receive a passenger astride the seat portion; and
an arrangement configured to immobilize a passenger on the support, the arrangement configured to maintain shoulders of the passenger free and to secure the passenger at least against the front support member at at least one of an abdominal portion of the passenger and a thoracic portion of the passenger.

Claims 58 and 59. (Canceled).